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THE GEOGRAPHICAL FACTOR IN THE DEVELOPMENT OF CHINESE CIVILIZATION

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The outstanding difficulty in the way of any real settlement of the Far Eastern Question is undoubtedly the lack of a spirit of nationalism on the part of the Chinese people. But for this lack, indeed, there could hardly be any Far Eastern Question at all. The problems now clamoring for solution in southeastern Asia have arisen just because China is thus disunited and decentralized and therefore incapable of developing her own resources and determining her own policies without fear of foreign interference. If, as is unfortunately true, the control of her destinies is no longer in her own hands, it is because neither the staid and conservative North nor the alert and progressive South has been able to secure the unreserved allegiance of her entire population.

THE DISUNITY OF NORTH AND SOUTH

The spokesmen of the two sections declare, no doubt sincerely, that the point at issue is one of Constitutional interpretation; let that be settled, they tell us, and all will be well. Others, largely foreign observers these, would have us believe that the inability of Peking and Canton to discover any mutually acceptable basis for a real and permanent union is due to the different degree in which modern Occidental civilization has penetrated the two sections of the country. The South, say they, has been exposed for a longer period than the North to the influence of Western ideas. Both these explanations are doubtless true—in a measure. But that measure is not a large one.

There have been periods when China was great in the finest sense of that much misused word; when she was revered as a protector and teacher by her neighbors and respected as an equal, if not indeed as in some sort a superior, by the peoples of the West with whom she came in contact. But such periods have invariably been those when she was under the sway of a powerful dynasty able to compel the allegiance of all sections of the country. The moment the Imperial power has ebbed, ancient political and cultural and even ethnic antagonisms have emerged to view; latent tendencies toward separatism have become active; and local governments, each usually claiming *de jure* control over the whole people, have set themselves up in various sections of the country. The four hundred years of anarchy and general disruption which followed the downfall of the great House of Han, early in the third century of the Christian era, and that briefer interval.

during the tenth, known as the period of the Five Short Dynasties, offer us repeated examples of the same tendency that is operating before our eyes. And invariably the main lines of social and political and economic cleavage have run east and west, save in a few partial instances for which local and temporary conditions have been responsible.

In view of the persistence of this phenomenon despite the very real homogeneity of Chinese civilization for several centuries past, it seems clear that there must be some fundamental cause which has been operating for ages and whose unfailing tendency has been to divide the country into northern and southern sections the moment that the central authority, whether feudal monarchy or bureaucratic empire or constitutional republic, loses its grip. Such a cause, so constant in its operation and so unvarying in its effects, could scarcely be other than a physical one.

There can be little doubt, indeed, that this cultural and at times political division of China into a north and a south has been due primarily and fundamentally to the way in which the introduction and diffusion of civilizing influences from the earliest prehistoric times downward have been determined by her rivers.

Of these there are four principal groups. In the north is that including the lower Hwang Ho¹ and a few minor streams occupying what is generally known as the North China plain. South of this is the Yangtze system, separated from the preceding by that Tsingling range of mountains which with its lower eastward extension has always formed the real boundary between northern and southern China.² Along the coast, below the mouth of the Yangtze, the third group is composed of numerous streams, large and small, forming independent systems of their own. Lastly on the extreme west the Salween and the Mekong, though scarcely Chinese rivers in any true sense at all, still flow through Chinese territory for a certain portion of their course.

THE DAWN OF CIVILIZATION IN CHINA

It was in the valley of the Hwang Ho that civilization first made its appearance, some time, according to the best evidence available, between 3000 and 2500 B. C.³ It was essentially of a Bronze Age type, not pastoral and nomadic but settled and agricultural,⁴ with its fundamental features derived from the same common source with those of the great historic

¹ Save where usage has rendered other forms more familiar to the English reader, the transliteration of Chinese names in this paper follows Giles's dictionary.

² See regarding this function of the Tsingling range, L. Richard's *Comprehensive Geography of the Chinese Empire and Dependencies*, Shanghai, 1908, p. 42; Bailey Willis, *Bull. Amer. Geogr. Soc.*, Vol. 38, 1906, pp. 413 and 423.

³ Dr. E. T. Williams has ably summed up the evidence for this in his paper, "The Origins of the Chinese," *Amer. Journ. of Phys. Anthropol.*, Vol. 1, 1918, pp. 183-211.

⁴ Dr. James Legge (Shu King, "Chinese Classics," p. 191) says "The Chinese could never have been a tribe of shepherds." Shên-nung, the patron divinity of agriculture (Rev. John Ross: *The Origin of the Chinese People*, Edinburgh and London, 1916, p. 5) and the subject of some very early myths, is represented with the head of an ox (Henri Doré: *Recherches sur les superstitions en Chine*, Shanghai, 1911, Vol. 10, p. 717) and most probably stands for an original ox or bull god of fertility, so common among agricultural peoples throughout the Eurasiatic culture area. The fact that Shên-nung is represented as having been sired by a dragon, the fertilizing agent *par excellence* in both ancient and modern China, suggests this also.

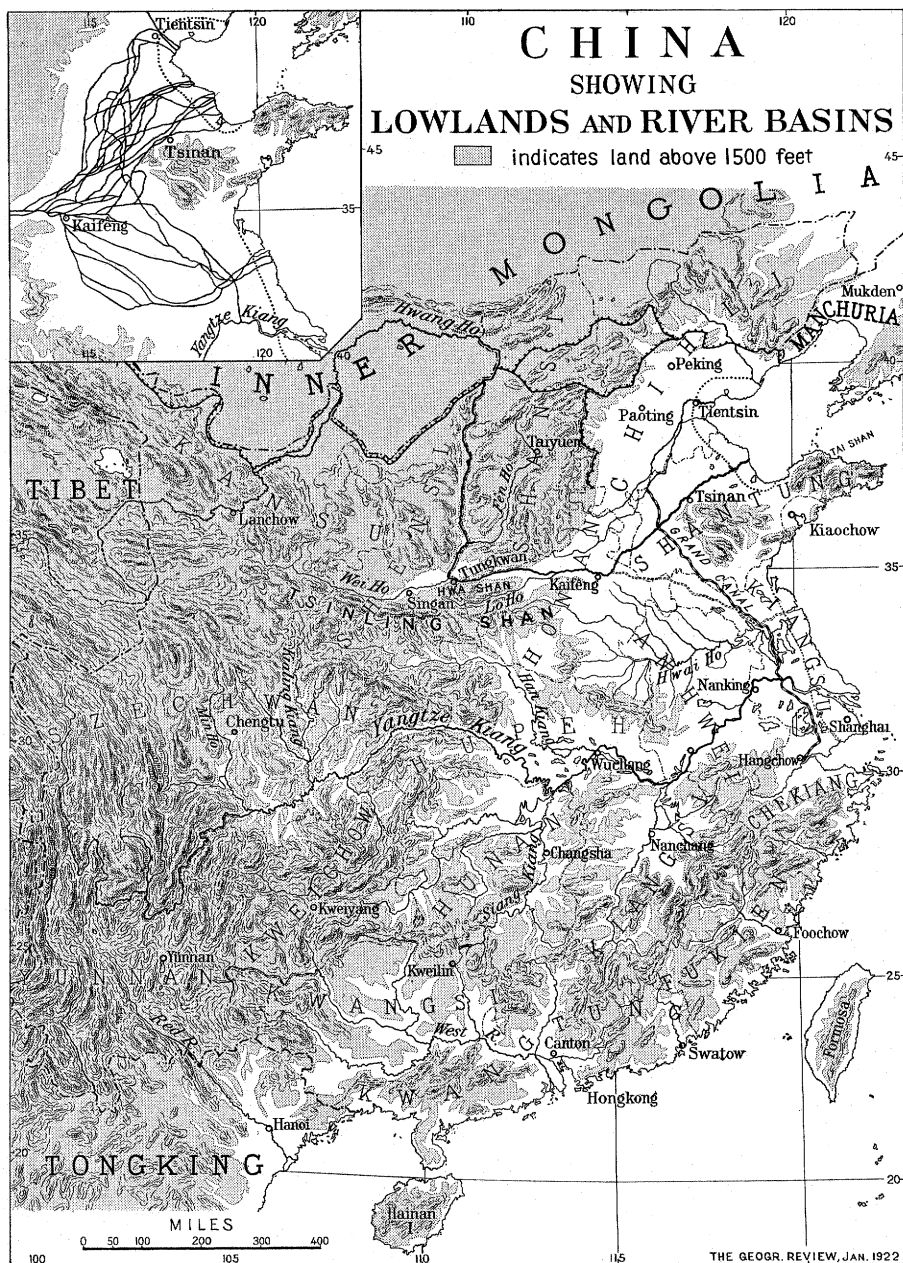


FIG. 1—Map of China showing lowlands and river basins. Note especially the Tsinling Range (part of the Hwang Ho-Yangtze divide) which with its lower eastward extension has always formed the real boundary between northern and southern China. (Scale of map 1 : 20,000,000.) Inset map showing changes in the lower course of the Hwang Ho and the seaward growth of the shoreline since the earliest historic times.



FIG. 2.—Map showing the main lines along which cultural influences from southern and western Asia have penetrated into China. Old trade routes also largely followed these lines. The location of the chief seats of the ancient Chinese states is shown, the names, as other ancient names, being printed in antique lettering.

empires of the Occident.⁵ The economic systems of the three ancient civilizations, Sumero-Babylonian, Indo-Iranian, and Chinese, founded alike on agriculture and cattle breeding, show much identity in detail, and there appears to be little doubt that China was indirectly in contact with western civilization from the remotest ages.⁶ Von Richthofen, who considers that the Chinese had learned agriculture in the oases of the southern part of the Tarim basin, says, truly, that they were never an absolutely isolated people.⁷ Specifically this earliest-known Chinese civilization appears to be related, in some way not yet clearly made out, to the prehistoric culture of southern and southwestern Siberia—the so-called “Scythic” area.⁸

DIRECTION AND CHARACTER OF CULTURAL SPREAD

The Yangtze River only comes under historic notice nearly two thousand years later, early in the first millennium before the Christian era. The influences operating to bring about the growth of civilization here fall into two groups. The first and, in the long run, most potent set worked gradually southward from the valley of the Hwang Ho and hence are ultimately derivable from Central Asiatic sources. But it is becoming increasingly apparent that from prehistoric times there has been a very real and important culture drift setting from the Ganges valley through Upper Burma and so across to the upper waters of the Yangtze, whose course it has followed eastward toward the sea.⁹ It is a course by which culture influences in the shape of British trade goods are still entering China, as Ainscough points out in his “Notes from a Frontier” (Shanghai, 1915).

The southeastern coast lands, shut off from the great interior basin by mountains once clad with dense subtropical forests, were civilized late, partly from the Hwang Ho and partly from the Yangtze areas. The process for the northern end of the territory was well under way by about 500 B. C., but farther south, in what are now Fukien, Kwangtung, Kwangsi, and Tongking, it hardly commenced until three or four centuries later. Part of this region, indeed, comprised in the modern province of Fukien, through

⁵ Berthold Laufer: Some Fundamental Ideas of Chinese Culture, *Journ. of Race Devel.*, Vol. 5, 1914-1915, pp. 160-174.

⁶ This is recognized by even so conservative a scholar as the Rev. Ernst Faber (*The Chinese Recorder*, Vol. 27, 1896, p. 548). Prof. Wm. Ridgeway (*The Origin of Metallic Currency and Weight Standards*, Cambridge, 1892) says that there is little doubt of a complete trade connection from extreme western Europe to China from the most remote times.

⁷ Ferdinand Freiherr von Richthofen: China: Ergebnisse eigener Reisen und darauf gegründeter Studien, Berlin, 1877, Vol. 1, p. 48, footnote.

⁸ On this question see P. Reinecke: Ueber einige Beziehungen der Alterthümer China's zu denen des skythisch-sibirischen Völkerkreises, *Zeitschr. für Ethnologie*, Vol. 29, 1897, pp. 141-163; also A. de Mortillet: L'Age du Bronze en Chine, *Rev. Anthropol.*, Vol. 23, 1913, pp. 397-415; Sir C. Hercules Read: Siberian Bronzes and Chinese Jade, *Man*, Vol. 17, 1917, pp. 1-4.

⁹ Regarding the route followed by this line of culture penetration see Sir A. P. Phayre: History of Burma, London, 1884, pp. 4 *et seq.* and 15; L. W. Shakespear: History of Upper Assam, Upper Burmah, and North-Eastern Frontier, London, 1914, p. 8; G. E. Gerini: Researches on Ptolemy's Geography of Eastern Asia (Further India and Indo-Malay Archipelago), Asiatic Soc. Monographs, No. 1, London, 1909, pp. 28, 60 *et seq.*, 122, 124, 285, and 660, footnote 2; and Émile Rocher: La province chinoise du Yün-nan, 2 vols., Paris, 1879, 1880; reference in Vol. 2, p. 264 *et seq.*



FIG. 3

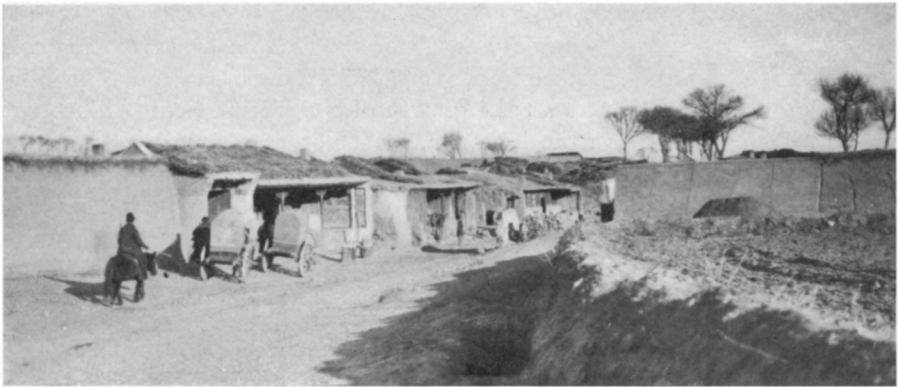


FIG. 4



FIG. 5

FIG. 3—Three of a series of beacon towers in northern Shansi near the line of the Great Wall, to give warning by fire or smoke signals of the approach of Tatar invaders. Now displaced by a line of telegraph seen to the left. This and the following photographs were taken by the author for the University Museum, Philadelphia.

FIG. 4—Winter scene in northern Shansi village; little snow; but weather intensely cold, and people mainly hibernating; fuel on roofs. Tatar influence is strong in northern Shansi; see, e.g., mounted man in picture.

FIG. 5—This memorial gateway (pai-lou) was erected about 1795, near where the Wei flows into the Yellow River; owing to deforestation of the hills near the road, it has been buried not less than 12 or 14 feet deep in a little over a century.



FIG. 6



FIG. 7



FIG. 8

FIG. 6—A portion of the north China plain, showing its monotony broken only by grave mounds, clumps of trees spared for economic value or religious reasons, and mud-walled villages. In ancient times it was customary to run furrows parallel with the frontier to hinder the war chariots of invaders.

FIG. 7—Mountains of northern Shansi, near the line of the Great Wall, showing deforestation. Records show that these mountains were once clad with magnificent deciduous forests.

FIG. 8—Torrent bed in northern Shansi, showing how deforestation has ruined valuable river bottoms by allowing gravel and boulders to be washed down over them.

just this lack of water communication with the interior, was not permanently incorporated within the Chinese Empire until so late as 939 A. D.

Owing to peculiarities of terrain in the western region, the culture spread there has been not along but athwart the principal rivers, which have been obstacles rather than aids to its diffusion. The region owes its importance to the fact that here the Yangtze valley approaches most nearly to the Burmese area, thus providing an avenue for the infiltration into Central China of those Indian influences just mentioned. Burma and Yunnan form a geographical unit that at times has also been a political unit.¹⁰

The most westerly point to which the origins of Chinese civilization can as yet be traced with assurance is on the upper waters of the Wei. This river drains eastern Kansu and central Shensi, falling finally into the Hwang Ho not far from the point where the latter makes its great bend eastward. Many of the earliest myths of the Chinese people are localized in its valley; and, what is more, these same myths are just those which preserve most definitely features connecting them with the folklore of western Asia and eastern Europe. Among these is the belief in beings with serpent bodies and human heads. The mythical Chinese civilizer, Fu-hi, a creature of this description, is said to have been born near the sources of the Wei, in Kansu; and the legends about him are localized mainly in the northwestern provinces of Shansi, Shensi, and Kansu.¹¹ The introduction of metal is ascribed to him¹² rather significantly, in the first place on account of this very connection of his with the west, and, secondly, because a similar mythological concept of a human-headed serpent also appears in that same Scythic area to which China appears to have been culturally related. Another parallel to a well-known western belief is the legend of the supernatural "great bull of the River Fêng,"¹³ and there are accounts of white horses, especially white chariot horses, which suggest Occidental contacts.¹⁴

It was here in the basin of the Wei that the old Bronze Age civilization of China received its definite and specialized form. And apparently here it remained for a long period before it pushed on still farther east, into the great North China plain, then occupied by Neolithic barbarians who lived mainly by hunting and fishing, eked out with a primitive horticulture carried on by the womenfolk with the aid of great stone hoes precisely like those employed by some tribes of our own American Indians.

When, some time after 3000 B. C., this invasion took place, it was not, it would seem, as a concerted movement, undertaken upon a large scale all at once. What really occurred was probably a sort of culture penetration carried on slowly by traders, refugees, captives, stragglers, and, possibly,

¹⁰ J. Klaproth: *Tableaux historiques de l'Asie*, Paris, 1826, p. 128; R. F. Johnston: *From Peking to Mandalay*, London, 1908, p. 287; and W. W. Cochrane: *The Shans*, Rangoon, 1915, p. 49.

¹¹ Édouard Chavannes: *Les mémoires historiques de Se-ma Ts'ien*, 5 vols., Paris, 1895-1905; reference in Vol. I, p. 5, footnotes 2, 4, 5.

¹² Doré, *op. cit.*, Vol. 10, p. 716.

¹³ Chavannes, *op. cit.*, Vol. 2, p. 18 and footnote 2.

¹⁴ Legge, *Shu King*, "Chinese Classics," Part IV, Bk. 1.

small bodies of actual invaders. In the early legends¹⁵ a prominent part is played by Hwang Ti and may indicate, as pointed out by E. T. Williams, that he was really the leader of a band of immigrants. His name, or rather title, is usually translated "Yellow Emperor," though the correctness of this has been questioned. Whatever its meaning, it may well have been the title borne by a succession of sacerdotal rulers: "Ti" connotes divinity, and might suitably be applied to a god king of the type widely spread among primitive agricultural peoples. At all events it is clear, as Dr. Williams says, that this cycle of legends is referable to extreme northwestern regions and not at all to the lower valley of the Hwang Ho, the later "Middle Kingdom."

SMALL CITY STATES ANCESTORS OF MODERN TOWNSHIPS

The result was the establishment, not of a single centralized "empire," but of a vast number of small city states, the ancestors of the modern *hsien* or townships, each under the control of a ruling clan with a patriarchal organization and a culture not very different from that of the earliest Babylonia that we know historically. The simple, almost parochial, character of the social organization depicted in the old Chinese myths proves that the latter were at first told of petty communities. Furthermore, the legends say that Hwang Ti delimited 10,000 fiefs and built a city in each. This seems undoubtedly a folk recollection of a period of small city states.

In some cases these *hsien* actually retain to this day the same names that they bore as *kuo*, or independent states, 3,000 years ago. Their numbers are given as 10,000 under the Hsia Dynasty (said to have ruled 2205-1766 B. C., but here we are still in the legendary period); as 3,000 under the Shang (1766-1122 B. C.); and as 1,800 at the beginning of the Chou period (1122 B. C.).¹⁶ This progressive reduction in the number of the fiefs was of course accompanied by a corresponding increase in size; but even so, the 1,800 said to have been in existence at the close of the second millennium before the Christian era must have been tiny affairs, for the same area nowadays contains scarcely half as many *hsien* or townships. The average size of the modern *hsien* in Shantung, for example, is, according to R. F. Johnston,¹⁷ only 520 square miles. As Professor Parker remarks, in early times the "country" of each feudal chief was his mud village and the few square miles of fields around it.

The tie which bound these primitive little states together in the sort of loose confederation which seems to have existed was not political but

¹⁵ On the legends see H. Kurz: *Mémoire sur l'état politique et religieux de la Chine, 2300 ans avant notre ère, selon le Chou king*, *Journ. Asiatique*, 2nd Ser., Vol. 5, 1830, pp. 401-436 and Vol. 6, pp. 401-451; Léon de Rosny: *Shan-hai-king*, Paris, 1891, *passim*; M. Bazin aîné: *Notice du Chan-hai-king, cosmographie fabuleuse attribuée au Grand Yu*, *Journ. Asiatique*, 3rd Ser., Vol. 8, 1839, pp. 337-339; John Ross, *op. cit.*, Ch. 1; Léon Wiegier: *Textes historiques, Shanghai*, 1903, pp. 23-47; Chavannes, *op. cit.*, Vol. 1, Ch. 1; Wang Ch'ung: *Lun-Hêng* (Alfred Forke's transl., 2 vols., 1907), *passim*.

¹⁶ See Kanichi Asakawa: *The Early Institutional Life of Japan*, Tokyo, 1903, p. 188; also Wiegier, *op. cit.*, p. 103.

¹⁷ R. F. Johnston: *Lion and Dragon in Northern China*, London, 1910, p. 16.

religious. Its outward manifestation consisted in the common periodical worship of the sky, whose chief minister, the T'ien Tzŭ, or "Son of Heaven," was far more a priest than he was a king, although he seems already, three or four thousand years ago, to have evolved beyond the stage where he was actually a god himself, *in propria persona*.

IMPORTANCE OF THE FÊN AND LO VALLEYS

For the first two thousand years or so after its emergence from the Wei valley the old Chinese civilization was confined almost wholly to the banks of the Hwang Ho and its affluents. Among the latter, one of the most important was the Fên, in southwestern Shansi, whose valley was apparently



FIG. 9—On the upper Yangtze near the upper end of the Gorges; style of boat known as a *wu-pan*.

one of the earliest occupied and where in time there grew up a powerful state. There are reasons, indeed, for believing that this region was a center of Chinese culture even earlier than the valley of the lower Hwang Ho itself. Many of the oldest legends are localized here, and the earliest dynasty, that of the Hsia, is said to have been centered here. The important state which occupied this area during much of the first millennium before the Christian era retained the use of the very ancient Hsia calendar, with the year beginning in March. Another center of civilization was the valley of the Lo, which flows into the Hwang Ho from the southwest in what is now north-central Honan. Its importance was mainly due to the fact that it formed, with a short and easy portage, the best avenue of communication with the Yangtze basin. This route dates back to the earliest recorded times and undoubtedly exerted a controlling influence in the dissemination of the Bronze Age culture southward from prehistoric ages onward. In the opposite direction the farthest outposts of Chinese civilization were located

on either side of the mouth of the Hwang Ho, which then entered the Gulf of Chihli near the modern Tientsin.

The one instance in which the protohistoric Chinese spread beyond the Hwang Ho basin was in the case of the Hwai River, whose headwaters, in central Honan, they occupied at an early date. But the conquest of the middle and lower course of this stream was quite beyond their power. A half-drowned region inhabited by a stubborn race who fought largely from canoes, the Chinese with their clumsy war chariots could do nothing with it, and it remained independent for something like two thousand years. The thickly forested mountains of Shansi and Shantung and the height of land bounding the Hwang Ho basin on the southwest also remained un-



FIG. 10—Hwang Ho (Yellow River), from the crossing of the Peking-Hankow railway, at low water.

conquered,¹⁸ as did the regions near the seacoast. The fact was that, as is commonly the case with early civilizations, that of Bronze Age China, while admirably adapted for the particular sort of environment in which it was evolved, possessed little flexibility or power of adjustment. Based fundamentally upon the plow in peace and the chariot in war, in hilly or wooded country or in regions of jungle or swamp it found itself helpless; and such areas, whether as frontier lands or as enclaves surrounded by the civilized Chinese states, remained free and unassimilated for ages.

Toward the close of the second millennium before the Christian era a fresh access of culture influences from the West reached northern China in

¹⁸ On the ancient forests of China, see the Shi King ("Odes") *passim*; Mencius (Legge's transl.), Vol. 1, Part I, Ch. 3, par. 3; J. J. M. de Groot: *The Religious System of China*, 6 vols., Leiden, 1892-1910; reference in Vol. 5, p. 660 *et seq.*; Édouard Biot: *Recherches sur les mœurs des anciens Chinois, d'après le Chi-king*, *Journ. Asiatique*, 4th Ser., Vol. 2, 1843, pp. 307-355 and 430-447; reference on p. 323; and *idem*: *Le Tcheou-li, ou Rites des Tcheou*, 2 vols., Paris, 1851, Ch. 37. For an interesting description of the last existing bit of the ancient North China forest, see A. W. S. Wingate: *Nine Years' Survey and Exploration in Northern and Central China*, *Geogr. Journ.*, Vol. 29, 1907, pp. 174-200 and 273-306.

connection with what is known historically as the Chou conquest. And here again it is the Wei basin that is found playing the leading part.

THE CHOU CONQUEST FROM THE WEI BASIN

Lying at the eastern extremity of the ancient line of culture drift across Asia and separated from the North China plain by somewhat definite mountain barriers, this basin has played the part time after time of a storage reservoir in which both fragments of peoples and scraps of civilizations have found lodgment. Under the influence of such highly complex stimuli a culture would be formed there, only to overflow at length upon the rich plains to the eastward and there undergo a further and larger development along the lines already determined for it. The Chou conquest of China, while probably far from being the first instance of this process, is the earliest of which we have actual historical accounts.

The Chous, when we first hear of them, are found dwelling in the upper portion of the Wei basin. Who they were, or whence they came, we do not know. Racially they were probably rather closely akin to the early Chinese. But one of their oldest myths claimed for their ruling house descent from a maiden mother and miraculously conceived son of a familiar West Asiatic type and, like the latter, patron divinities of agriculture.¹⁹ Moreover the Chous introduced into the Hwang Ho valley the harem system with eunuch attendants so well established in Babylonia and adjacent lands but hitherto unknown in China. And in the period immediately succeeding their conquest of China proper they were in touch with places in the west which are apparently to be sought for in the Tarim or Turfan regions.

During the first three centuries or so of their rule over China proper the Chous retained their headquarters in the Wei basin, although they established a secondary capital in their newly won possessions to which they made royal progresses from time to time, to offer the great state sacrifices and receive the homage of the assembled feudal lords. For some time they appear to have entertained designs of conquering the nearer portions of the Yangtze valley, and several of their early rulers are recorded as having invaded those regions. But they achieved no permanent annexations, and the southern frontier of the Chinese culture area in the early part of the first millennium before the Christian era seems to have been pretty much where it had been for the past thousand years or more, along the water parting between the Hwang Ho and the Yangtze.²⁰

Eventually, in the eighth century before Christ, the ruling house of the Chous, already greatly weakened by internal decay as well as by various external causes, were forced out of their ancient seats in the Wei valley by

¹⁹ See on this Legge, *Sacred Books of the East*, Vol. 3, pp. 319 *et seq.*, 396, 398, and footnote 1; also Chavannes, *op. cit.*, Vol. 1, p. 209 *et seq.* This concept of a Mother Goddess and Divine Son, particularly as patrons of agriculture, is of course well known in the Occident, especially in Asia Minor and Syria.

²⁰ For an interesting account of the founding of a town in this region (modern Fêng-chou, Nan-yang prefecture, Honan) as an outpost against a non-Chinese people, see Legge, *Sacred Books of the East*, Vol. 2, p. 424 and footnote 1.

predatory tribes from the west and compelled to remove to their eastern capital of Loyang, on the Lo River, in ancient China proper. Thus deprived of their old native territorial and fiscal base,²¹ they speedily lost what little remained to them of temporal power and degenerated into a line of *fainéant* priest kings whose sacerdotal character alone secured for them a further existence of several centuries. None of the Chinese states which had grown up out of the fiefs they had apportioned out after their conquest of China ever ventured, indeed, upon the sacrilege of overthrowing them; and the extinction of their line was the work of a fresh invasion from the west in the third century before Christ.

CLIMATIC CYCLES AND FOLK MOVEMENTS

Here parenthetical remark may be made regarding a curious set of coincidences in connection with the early history of civilization in China. Ellsworth Huntington has shown²² that there has occurred in Babylonia and the eastern Mediterranean region a succession of periods of humidity and general prosperity alternating with others of dryness and general disturbances. These periods he has traced from around 2200 B. C. to 750 B. C. The striking parallelism with contemporaneous conditions in China can best be presented in tabular form:

OCCIDENT		CHINA	
2200 to 1750 B. C.	Period of humidity and general prosperity and progress	2205 B. C.	First dynasty founded
1700	Center of period of dryness with invasions from the desert and domestic disturbances	1766	First dynasty overthrown by a popular revolt following seven years of drought
13th century	Period of dryness with consequent famines, domestic turmoil, and invasions	1122	Second dynasty overthrown by popular revolt and invasion from the west
870 to 750	Probably somewhat dry period	842 to 771	Period of turmoil and invasion from the west; great drought, accompanied by disturbances, recorded for about 822 B. C.

²¹ Wang Ch'ung (Lun-Hêng, Alfred Forke's transl., 2 vols., 1907; reference in Vol. 1, p. 438) says that Wu Wang, the founder of the Chou line, relied on the people of his original fief of Chou, in the Wei valley, to fight his battles for him, and that all the early dynasties regarded the district of their origin as the basis of their power. Cordier (*op. cit.*, Vol. 1, p. 127) says that the decadence of the Chous began with their removal to Loyang.

²² Ellsworth Huntington: *Palestine and Its Transformation*, Boston and New York, 1911, pp. 383-398.

These coincidences seem almost too numerous and too exact to be purely fortuitous. Perhaps we may at least take them as indicating that the major periods of humidity and of aridity have made their influence felt in precisely the same way at both extremities of the Asiatic continent.

THE INTRODUCTION OF IRON

It was probably about the middle of the Chou period, or somewhere about the eighth or seventh centuries before Christ that bronze as the predominant metal in Chinese civilization began to yield its supremacy to iron. That iron was known in western Asia before it reached the central and eastern portions of the continent seems probable. De Morgan²³ remarks that it was already in common use in Assyria, Asia Minor, and Armenia before it penetrated to the regions east of the Caspian. According to the British Museum's "Guide to the Antiquities of the Bronze Age" (1904) iron was not generally employed in Mesopotamia till about 1000 B. C., while the "Guide to the Antiquities of the Early Iron Age" (1905) gives the same date as approximately marking the end of the exclusive bronze culture in classical lands. W. M. Flinders Petrie²⁴ says that iron was introduced into Egypt about 800 B. C., while Professor Ridgeway²⁵ gives about 860 B. C. as the date of the earliest mention of iron in the Assyrian tablets. Hence, unless we suppose that the Chinese worked out independently the method of reducing iron ores, which while of course not impossible seems on the whole unlikely, the ascription of its earliest use by them to the eighth century before Christ or thereabout seems in the light of our present knowledge most probable.²⁶

The Yü-kung, or "Tribute of Yü," which in its present form seems to date from about that time or perhaps a century or so earlier,²⁷ speaks of gold, silver, and copper as "the three metals" but states that iron is obtained from Liang Chou, a western region which included at least part of the modern province of Kansu. And there can be little doubt that it was by this age-old Central Asiatic route to the headwaters of the Wei that the Chinese obtained their knowledge of the new metal. Its employment seems at first to have been confined, as in other lands, to the fabrication of domestic utensils, bronze being retained for weapons and ceremonial objects.

²³ J. de Morgan: *Mission scientifique au Caucase: Études archéologiques et historiques*, 2 vols., Paris, 1889; reference in Vol. 1, p. 38.

²⁴ W. M. Flinders Petrie: *Ten Years' Digging in Egypt, 1881-1891*, New York, n. d., p. 152.

²⁵ William Ridgeway: *The Early Age of Greece*, 2 vols., Cambridge, 1901; reference in Vol. 1, p. 616.

²⁶ Taxes are mentioned as levied on iron in the seventh century before Christ (Forke, *op. cit.*, Vol. 2, p. 72, footnote 5). De Groot (Religious System, Vol. 1, p. 287) says merely that iron was in general use in China during the Chou period (1122-255 B. C.). De Mortillet, on the other hand (*loc. cit.*, p. 399), says that bronze was not replaced by iron in China until the Ch'in Dynasty (late in the third century before Christ). There is a solitary statement (see Wieger, *op. cit.*, p. 59, and Biot, *Mœurs*, p. 332) to the effect that iron was mined and made into swords as far back as around 1800 B. C., but in the light of the other evidence this is surely an anachronism. The question is discussed at length by Professor Hirth in his "Chinesische Ansichten über Bronzetrömmeln," Leipzig, 1904, p. 17 *et seq.*

²⁷ On the dating of the Yü-kung see Chavannes, *op. cit.*, p. cxli; Legge, *Shu King, Sacred Books of the East*, Vol. 3, p. 64, footnote 1; Arthur Morley: *A Study in Early Chinese Religion*, *New China Rev.*, Vol. 1, 1919, pp. 176-208, 262-281, and 372-384; reference on p. 177; and *idem*, "The Yü-kung Classic," *Chinese Recorder*, Vol. 45, 1914, p. 238 *et seq.*



FIG. 11



FIG. 12

FIG. 11—The road from Loyang to Sian fu, called by Richthofen "the worst road in China." In the distance the loess scarp marks the edge of the valley (of a small southern affluent of the Wei). These loess bluffs are in many places honeycombed with artificial caves used as dwellings.

FIG. 12—Hamlet of Yün-Kang in northern Shansi. Famous Buddhist grottoes of the fifth century of our era, located here, formed in their prime the worshipping place of emperors and the object of pilgrimages. They are now practically deserted and almost unknown. The picture shows a very primitive type of ox cart. Notice the wheels without spokes.

THE KINGDOM OF CHOU IN THE YANGTZE VALLEY

While there are earlier allusions to the area and its people, the first references to the cultural development of the Yangtze valley region date early in the first millennium before the Christian era. We then find rising there, on the north bank a little way below the famous gorges, the "barbarian," or non-Chinese, kingdom of Ch'u. The old Chinese name for this region was Ching Chou, or "Jungle-Land," and the character with which the name Ch'u itself is written contains as one of its elements the symbol for a forest. The delay of two thousand years which occurred before the Chinese culture succeeded in penetrating this area from the Hwang Ho valley, only a short distance to the north, was undoubtedly in great part due to the thickly forested character of this ancient lake bed, now one of the most densely populated and intensively cultivated portions of all China.

There is some reason to believe that the ruling element, at least, in Ch'u was of the great and highly gifted T'ai race, of which the Siamese, the Shans, and the Laos are the best known modern representatives.²⁸ At all events its growth was steady, and it rapidly became the leading state of the great valley, exercising a vague suzerainty even as far as the sea. But it was not until the latter part of the fourth century before Christ that it attained to its greatest power. At that time it had pushed its conquests up the Yangtze and its affluent, the Han, into eastern Szechwan and southern Shensi, on the one hand; while, on the other, it had after a savage struggle definitely subjugated and annexed the entire valley as far as the sea and had even made tributary the coastal regions extending southward from the mouth of the Yangtze. It had further succeeded, as the Chinese themselves had never done, in subduing the stubborn inhabitants of the Hwai valley; and it had also made important annexations among the native Chinese states in the Hwang Ho valley itself. Finally, toward the close of the century it despatched an army up the Yangtze to seize the Ta-li fu region in western Yunnan, in part no doubt for the purpose of securing control of the trade from Indian regions which was likely otherwise to be diverted northeastward, through Szechwan, to the rival state of Ch'in, then coming into prominence in the historic old Wei River basin.

EARLY CULTURAL FOCI IN THE WEST

Meanwhile, in the Yangtze valley above Ch'u two independent culture foci had appeared, in the valleys of the Chia-ling and the Min, in the modern Szechwan. Here, as might be expected, Indian influences appear to have been particularly strong.²⁹ Rice and sugar cane remain to this day among the staple cultivated plants, while the water buffalo and the zebu, or humped

²⁸ Cochrane, *op. cit.*, pp. 4, 17, and 19; J. H. Freeman, *Chinese Recorder*, Vol. 49, 1918, p. 456; *Gazetteer of Upper Burma and the Shan States*, Rangoon, 1901, Part I, Vol. 1, p. 187 *et seq.*

²⁹ For the first historical mention of trade between this region and India, in the second century before Christ, see A. Wylie: *History of the South-Western Barbarians and Chaou-sëen*. Transl. from the "Tseen Han Shoo," Bk. 95, *Journ. Anthropol. Inst.*, Vol. 9, 1880, pp. 53-87; reference on p. 59.

Indian ox, figure prominently among the domestic animals. The details of hut construction among the peasantry are identical with those now or formerly extending over the whole of the Indo-Chinese area taken in its widest sense.

Farther west still the territory comprised within the west-central portion of the modern province of Yünnan was from the earliest times in close contact with the lands about the head of the Bay of Bengal. In this latter region, according to most authorities, originated the cultivation of irrigated rice with the aid of the water buffalo; and it was apparently by the Burma-Yünnan route that it penetrated to the Yangtze valley and in time to South

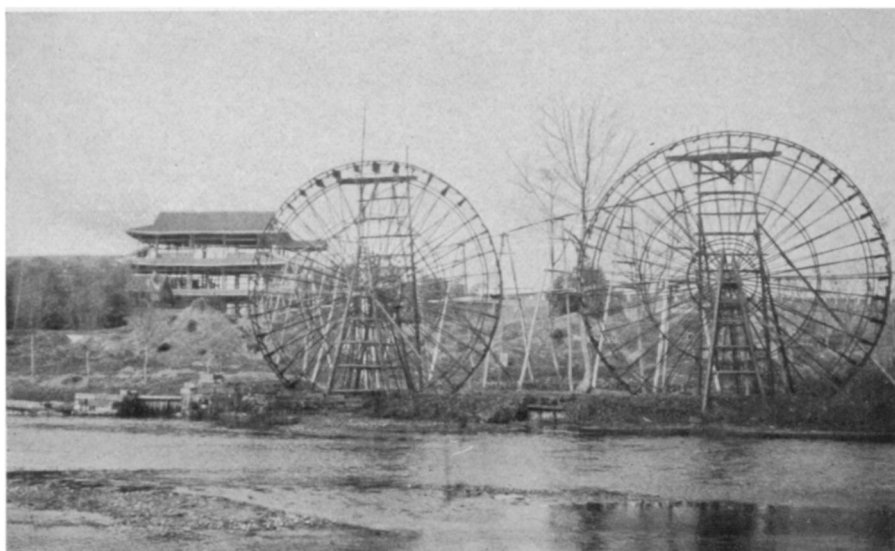


FIG. 13—So-called "Persian" water wheels outside the city wall of Ch'eng-tu, the capital of Szechwan and of the ancient kingdom of Shuh; the wheels are made of bamboo and are about 40 feet in diameter.

China generally. This cultivation appears the essential requisite to any cultural advance in southeastern Asia.³⁰ It was perhaps the acquisition of this staple foodstuff that eventually led to the rise of the large Yangtze River powers, from Szechwan to the sea, just as the cultivation of millet and wheat was what made possible the Chinese civilization of the Wei and Hwang Ho valleys, two thousand years earlier.

THE MARITIME STATES OF WU AND YÜEH

At the other extremity of the great river, in the region about its lower course and embouchure, shortly before the middle of the first millennium before the Christian era there arose the state of Wu, supposed by some to

³⁰ W. W. Skeat and C. O. Blagden: *Pagan Races of the Malay Peninsula*, 2 vols., London, 1906; reference in Vol. 2, p. 451.

have been peopled by a stock akin to the modern Annamites. By means of fleets of large war canoes—ancestors of the modern “Dragon boats” of festival fame³¹—this kingdom managed to render tributary much of the Chinese seaboard. It also carried on with its ancient suzerain, Ch’u, a long and bitterly contested war, in the course of which it took and sacked Ch’u’s capital. Wu seems, however, to have tried to do too much and to have exhausted itself in the effort; for early in the fifth century before Christ it collapsed, completely and once for all, before an assault by a state of kindred stock and culture just to the south, known as Yüeh, whose capital was located on the southern shore of the Bay of Hangchow. This state, even more purely a maritime power than Wu, rapidly extended its conquests up and down the coast as well as along some of the inland waterways and even for almost a century located its capital on that Kiaochow Bay in Shantung about which we have been hearing so much during the past few years. Eventually, however, in the fourth century before Christ it was conquered and incorporated by Ch’u, which at the same time laid under tribute the seaboard regions farther south. But Ch’u, with its administrative center a thousand miles up the Yangtze, could exert little influence in regions so distant; and these coast lands, composed of a large number of separate small principalities, appear speedily to have regained their complete independence.

And now it is necessary to turn once more to that Wei River valley already so often mentioned, whose geographical position affords the key to the development of Chinese civilization from prehistoric times.

THE CONTEST BETWEEN SOUTHERN AND WESTERN CULTURES

The fundamental fact in the creation of the Chinese Empire as the centralized, bureaucratic, and theoretically absolute monarchy which existed until the other day is the tremendous century-long struggle between the states of Ch’u with its essentially Indo-Chinese culture, on the one hand, and of Ch’in with its Central Asiatic affinities, on the other, for the mastery of the Yangtze valley. It was a struggle *à outrance*, in which there could be neither compromise nor giving of quarter. It entailed for the victorious power such success as rarely falls to the lot of any people; but for the loser, nothing short of total annihilation as a distinct ethnic and political entity.

Of the growth of Ch’u a sketch has already been given. The rise of its great opponent, the state of Ch’in, dates from the time when the Chous, in the eighth century before Christ upon evacuating their ancient western seats, made its ruler, until then a mere petty feudal chieftain, Warden of the

³¹ On Wu’s raids by sea and river see Legge, *Chinese Classics*, Vol. 5, Part II, p. 281. The fleets in which the coast peoples raided one another as well as the Chinese up the inland waterways undoubtedly consisted of great war canoes like those used by the Indo-Chinese nations almost universally until a few generations ago. See on these Col. A. Lane Fox: *On Early Modes of Navigation*, *Journ. Anthropol. Inst.*, Vol. 4, 1875, pp. 399-437; reference on p. 404 *et seq.*; Mrs. Ernest Hart, *Picturesque Burma, Past and Present*, London, 1897, p. 118.

On the modern Chinese “dragon boat” used in connection with the festival held on the fifth of the fifth moon, see Lewis Hodous: *The Great Summer Festival of China as Observed in Foochow*, *Journ. North-China Branch of the Royal Asiatic Soc.*, Vol. 43, 1912, pp. 69-80; reference on p. 76; J. J. M. de Groot: *Les fêtes annuellement célébrées à Amoy (Amoy)*, 2 vols., Paris, 1886; reference in Vol. 1, p. 347.

Western Marches. Turkic relationship has been asserted for the people of this state,³² and certain it is that in many ways they stand clearly differentiated from the natives of the ancient Chinese culture states of the North China plain. Warlike, ambitious, and savagely cruel on occasion, they were at the same time intelligent and progressive, and in their political, military, and economic organization were far ahead of China proper.

All that we know of the history of Ch'in, aside from the scanty information afforded by a few brief inscriptions,³³ is derived from the Chinese, who were bitterly hostile to it and who ascribed every advance in civilization which it made to the advice of various traitor Chinese refugees at its court. The cultural evidence, however, points strongly the other way, toward western Asia and particularly toward Persia, as the region whence Ch'in derived much of its civilization. The Persian Empire during the fourth century before Christ, it will be remembered, reached as far as the Jaxartes and the Indus, while Ch'in about the same period took in much of Kansu and portions of Szechwan, termini, respectively, of important trade routes from precisely the Jaxartes and Indus valleys.³⁴ As a consequence of these commercial relations the name "Ch'in" began to be known in western regions some centuries before the Christian era, and came to be applied by a species of geographical synecdoche to the whole Chinese culture area—an application which survives to this day in the majority of European languages. The Persians seem to have known of silk, which even reached Greece in small quantities at least as early as the fourth century before Christ. The Ch'in of the following century, we know, was aware of the existence of the Hellenic kingdom of Bactria, even beyond which, in one of its inscriptions, it claimed to have penetrated.³⁵ The great palace of Shih Hwang-ti, the most famous ruler of the House of Ch'in, as described to us by Chinese writers, though built of wood yet seems clearly of the western Asiatic rather than the Chinese type of that period;³⁶ it certainly impressed the contemporary Chinese as a very remarkable building, and apparently not wholly because of its vast size. And

³² Chavannes, *Mémoires historiques*. Cordier disagrees with Chavannes. See Legge, *Chinese Classics*, Vol. 4, Prolegomena, p. 141.

³³ Édouard Chavannes: Les inscriptions des Ts'in, *Journ. Asiatique*, 9th Ser., Vol. 1, 1893, pp. 473-521; reference on p. 481 *et seq.*

³⁴ On the old trade routes between China and the Occident see von Richthofen, *op. cit.*, Vol. 1, p. 459 *et seq.*; Sir M. A. Stein: *Ancient Khotan*, 2 vols., Oxford, 1907; reference in Vol. 1, p. 52 *et seq.*; Albert Herrmann: *Die alten Seidenstrassen zwischen China und Syrien*: Göttingen, 1910. Von Richthofen in his map in Vol. 1, opp. p. 386, puts the northwestern border of Ch'in at about the modern Lan-chou Fu, in Kansu, and fails altogether to show the annexation of Szechwan and the upper Yangtze basin by that state.

³⁵ Chavannes, *Inscriptions*, p. 500. On the relations between Bactria and China see Renaud, *Relations politiques et commerciales de l'Empire Romain avec l'Asie orientale*, *Journ. Asiatique*, Ser. 6, Vol. 1, 1863, pp. 93-234 and 297-441; reference on p. 113, footnote 1. W. W. Tarn (Notes on Hellenism in Bactria and India, *Journ. of Hellenic Studies*, Vol. 22, 1902, pp. 268-293) remarks (p. 291) that the Bactrians apparently had access to the rich Central Asian gold deposits of the Altai till the reign of Eucratides, when they were cut off from them by the great tribal movements instituted by the conquests of the Huns and thinks that there probably was a good deal of trade between China and the West before the time of the Han emperor Wu-ti (c. 100 B. C.), when it is generally said to have commenced.

³⁶ For a description of this edifice see Wiegner, *op. cit.* p. 269. On the spread of Persian architectural influences eastward, see E. B. Havell: *The Ancient and Medieval Architecture of India: A Study of Indo-Aryan Civilization*, London, 1915, p. 2 and *passim*; also Marcel Dieulafoy: *Les piliers funéraires et les lions de Ya-tcheou fou*, *Comptes rendus des Séances de l'Académie des Inscriptions et Belles Lettres*, 1910, pp. 362-377.

the court etiquette of Ch'in was decidedly Persian in many ways; any one, for example, who dared enter the Presence unbidden risked his life thereby. The whole institution of kingship in Ch'in, as a matter of fact, was far more developed and politicized than was the case anywhere in contemporary China. Hence even though Ch'in may never have come in direct contact with Persia—may never even have heard of such a country, though this is most unlikely—it seems quite certain that culturally it was deeply influenced by that great empire.

By the beginning of the fourth century before Christ the ten thousand small states which legend tells us once existed in the valley of the Hwang Ho had nearly all been consolidated into a few great ones, all of them contending for the supremacy but none of them able to achieve it. The T'ien Tzū, long since shorn of all temporal power, dwelt secluded and impoverished in his capital of Loyang, feared by none and revered, if at all, merely for his time-honored claim to be in some special way the intermediary between man and Heaven.

STRATEGIC IMPORTANCE OF THE YANGTZE VALLEY

The great non-Chinese kingdoms of Ch'u and Ch'in, on the other hand, were steadily growing more powerful and more menacing. Their opportunities for expansion at the expense of less civilized neighboring peoples were practically unlimited; their wealth of natural resources was such as would be accounted vast even today; and between them they controlled the only routes by which Western culture stimuli could reach China. There is, furthermore, some reason to believe that they had progressed further than the Chinese proper in the application of iron to the uses of war—an advantage which it would be impossible to exaggerate. The direct evidence for this is slight, but it seems probable in view of the superior opportunities enjoyed by Ch'in and Ch'u for receiving culture stimuli from the West, and their very evident superiority in war to the peoples of the ancient China proper along the Hwang Ho. Ch'ing, whose swords were specially prized, is identified by Biot³⁷ with a fief in the Wei valley; Wu and Yüeh are represented as eager for the iron of Ch'u in order to make weapons of it.³⁸ It was apparent that to either Ch'u or Ch'in was destined the mastery of southeastern Asia. And success was assured to that one which could secure and retain control of the Yangtze valley. The key to the Yangtze was the Han-chung region, on the extreme upper waters of the Han, in what is now southwestern Shensi. This region had been occupied at an early date by Ch'u, by whom its vital strategic significance was thoroughly understood; but after a long and bloody contest it was finally wrested away by Ch'in, who also about the same time—the last quarter of the fourth century—annexed the two culture areas in Szechwan, the basins of the Chia-ling and the Min.³⁹

³⁷ Biot, *Tcheou-li*, Ch. 40, section 10 and note.

³⁸ Albert Tschèpe: *L'histoire du royaume de Tch'ou*, Shanghai, 1903, p. 42, footnote 2.

³⁹ *Ibid.*, p. 206; also Rev. Thomas Torrance: *The Early History of Chengtu, Chengtu, Szechwan*, 1916, p. 2 *et seq.*

Once the grasp of Ch'in upon the Han-chung and Szechwan regions was firmly established, the final overthrow of Ch'u and the conquest of the small, feeble, and disunited states of the Hwang Ho valley was only a question of time. Ch'u, however, resisted desperately, and the struggle was protracted, with varying fortunes, for almost a century longer. Even to the very last, by superhuman efforts Ch'u managed to hurl back again and again vast armies of the invaders. But Ch'in fought with the same obstinacy and determination that the Roman Republic was displaying during the same period in its two earlier wars with Carthage. Ch'u in the long run was forced back step by step out of its native Yangtze valley into the basin of the Hwai. When the final catastrophe came, the Ch'u capital was in

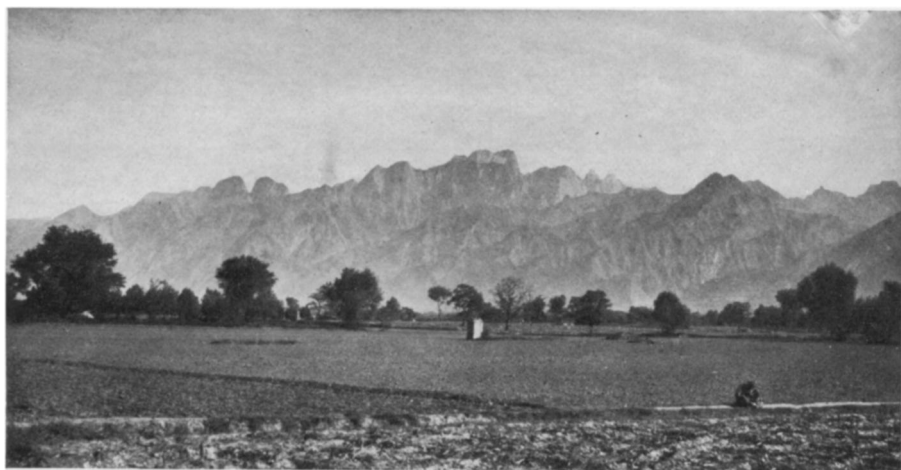


FIG. 14—Hwa Shan, the Sacred Mountain of the West, shortly after sunrise. It is situated south of the Wei River, in eastern Shensi.

northwestern Anhui, just south of the Hwai River and some three hundred miles northeast of its original location in what is now Hupeh province.

CONSOLIDATION OF CHINA UNDER THE FIRST EMPEROR

Ch'in found time, in the course of this Hundred Years' War, to annex most of the Chinese states of the Hwang Ho valley. Ch'u was finally blotted out in 223 B. C., and two years later the last of the old Chinese states, that of Ch'i, in Shantung, shared its fate. This task accomplished, the ruler of Ch'in, who up to that time had held the comparatively modest rank of *Wang*, or king, consolidated his conquests, provided them with a centralized bureaucratic government, and himself assumed the title of Shih Hwang-ti⁴⁰ or First Sovereign Emperor. It is difficult not to see in all this the influence of the careers of Cyrus and Darius and Alexander, and perhaps

⁴⁰ "Hwang" here is an entirely different word from that which means "yellow," although spelt precisely like it in English; to the Chinese the difference in the characters makes the distinction clear enough.

too of Chandragupta and Asoka. Be that as it may, the work of Shih Hwang-ti was far more lasting than that of any of these. Probably no greater political genius ever lived. Certainly his achievement of knitting together a single empire out of such hostile and discordant elements so firmly that it still coheres after the stresses and storms of over two thousand years, is a feat never equaled by any other man.

Soon after his assumption of the new Imperial title Shih Hwang-ti undertook to add to his dominions the southern maritime regions, never hitherto effectively conquered by any of the civilized Powers farther north. For this purpose he gathered a vast army of soldier colonists numbering, it is said, half a million men. In this invasion the fullest possible use was made of the rivers, a simultaneous advance being made over five different routes. The principal of these seems to have been in part that followed by the railway now in process of building between Hankow and Canton. From the Tungting Lake it ascended the valley of the Siang River into what is now north-eastern Kwangsi. At this point the great emperor had a canal dug to connect the waters of the Yangtze basin with those of the Cassia, a member of the great West River system. The invasion, like all else that the emperor undertook, was successful, and as long as he lived his power was acknowledged well down in what is now French Indo-China. After his death, however, his viceroy set up for himself, and it was not until nearly 100 B. C. that the South was again conquered for the Chinese Empire.

To the north and northwest, beyond the upper course of the Hwang Ho, conditions of a totally different order had to be met. Here was a semiarid region of boundless plains, inhabited by fierce horse-riding nomads⁴¹ whom it was utterly impossible either to control or to exterminate. Shih Hwang-ti's policy toward these was one of exclusion and defense—a policy which found its most tangible and lasting expression in the building of the Great Wall by his orders.

With the establishment of the Ch'in Empire the history of ancient China comes to an end. The Ch'in Dynasty itself soon passed away; but its work has endured. Whatever political structure may finally be erected in China will perforce have to conform to the foundations so firmly laid by that great princely house of which the First Sovereign Emperor was the most illustrious, as he was almost the last, representative.

In another sense also the Ch'in period marks the end of an era. Up to that time it seems quite certain that all cultural elements from the civilized lands of the Occident had entered China by the upper waters of one or other of her two great rivers. But under the succeeding dynasty of the Han began that oversea intercourse with distant nations which has been going on ever since in steadily increasing volume until now it vastly exceeds in importance that carried on overland along the ancient trade routes up the valleys of the Hwang Ho and the Yangtze Kiang.

⁴¹ H. H. Howorth: *The Northern Frontagers of China*, *Journ. Royal Asiatic Soc.*, 1898, pp. 467–502; Fr. Hirth: *The Ancient History of China to the End of the Chou Dynasty*, New York, 1908, p. 67.

But, with the growth of population in the interior of Asia and the attendant development of internal commerce that are bound to come, these old westward roads are destined one day to resume their former importance, and the same geographical factors which determined the direction and form of the civilization of the China of the Bronze Age will once more reassert themselves, with consequences to Siberia, to southeastern Asia, and to the world at large, which no one can as yet foresee.